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EXAMINER				
HUG, ERIC J				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/559,598

**Applicant(s)**

LIPPONEN ET AL.

**Examiner**

Eric Hug

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 71-84 is/are pending in the application.
- 4a) Of the above claim(s) 80-84 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 71-75 is/are allowed.
- 6) ☒ Claim(s) 76-79 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The following is in response to the amendment filed August 29, 2008. Claims 1-70 have been cancelled. New claims 76-84 have been added. All previous rejections pertaining to any of claims 1-70 are moot in view of the cancellation of those claims.

#### ***Specification***

The amendment to the specification is acknowledged. No new matter has been added.

#### ***Election/Restrictions***

Newly submitted claims 80-84 are directed to inventions that are independent or distinct from the invention originally claimed for the following reasons:

This application contains claims directed to patentably distinct species, i.e., different embodiments of a method of applying surface size to a paper web. The species are independent or distinct because claims to the different species recite the mutually exclusive characteristics of such species. In addition, these species are not obvious variants of each other based on the current record.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 80-84 have been withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

There is an examination and search burden for these patentably distinct species due to their mutually exclusive characteristics. The species require a different field of search (e.g.,

searching different classes/subclasses or electronic resources, or employing different search queries); and/or the prior art applicable to one species would not likely be applicable to another species; and/or the species are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the species unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other species.

New claims 76-78 fall within the scope of the method of original claims 52 and 53, therefore are under consideration for examination.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 76-79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Korhonen et al (US 6,994,771) in view of Laapotti (US 6,103,066).

Korhonen discloses methods for applying a coating or surface size to a web of paper or board in a paper making machine. With reference to the claims, Figure 1 shows a surface size spray applicator S1A disposed opposite a suction roll 7. A web is guided about the suction roll. The spray applicator S1A applies size to a first side of the web. Vacuum from the suction roll is applied to the other side of the web. Figure 2 similarly shows a spray applicator S1A disposed

opposite a suction turning roll. In both Figure 1, a second spray coater S2 is provided for the other side of the web. Similarly, in Figure 2, spray coaters S2A and S2B are provided for the other side of the web. See also column 4, line 24 to column 6, line 8. Air impingement drying or infrared drying may be provided therewith. See column 8, lines 15-36.

Korhonen does not disclose providing a vacuum of 5 to 80 kPa.

Laapotti is cited here to exemplify that suction rolls of the type depicted by Korhonen are operated at vacuum pressure of 2 to 30 kPa which overlaps the claimed range of vacuum pressure. See column 12, lines 12-20. It would have been obvious to one skilled in the art to operate the suction roll of Korhonen at the same pressure to insure proper web travel and transfer through the paper machine during a constant running condition. It would have also been obvious to provide a higher vacuum pressure, one that normal running values, in order to properly coat the web.

2. Claims 76 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamalainen et al (WO 02/072952) in view of Elijoki et al (US 5,756,156).

Hamalainen discloses a method of coating or surface sizing a paper web in the drying section of a paper machine. With reference to the claims, Figure 2 shows spray coating units 7, 3 disposed opposite a reversing suction roll 15, wherein the web is sprayed on one side and guided about the suction roll on the other side. See also page 8, second paragraph.

Hamalainen does not disclose providing a vacuum of 5 to 80 kPa.

Elijoki is cited here to exemplify that reversing suction rolls in a drying cylinder group of a paper machine are typically operated at a pressure of 1-3 kPa, which is just below the claimed

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range of vacuum pressure. See column 9, lines 15-34 and column 10, lines 36-54. It would have been obvious to one skilled in the art to operate the suction roll of Hamalainen at at least the same pressure to insure proper web travel through the dryer section. It would have also been obvious to one skilled in the art to provide a higher vacuum pressure, one that exceeds 3 kPa, in order to properly coat the web on the reversing suction roll and insure proper web travel of the coated web through the dryer section. In this instance, it is deemed one would exceed the claimed 5 kPa.

***Allowable Subject Matter***

Claims 71-75 are allowed for reasons given previously.

***Response to Arguments***

Applicant's arguments filed August 29, 2008 have been considered.

In view of the arguments, the references applied in the rejections under 35 U.S.C. 102 and 103 set forth previously are not applicable to the new claims. A new grounds of rejection is set forth above.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Heinzmann et al (US 6,187,142) discloses coating a web with an applicator located opposite a vacuum roll.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is (571)272-1192.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric Hug/  
Primary Examiner, Art Unit 1791